Fiscal Year 2011 Department of Defense Authorization Requests

Item Name: 120mm Mortar, All Types
Request: $ 4,200,000
Suggested Recipient: Pine Bluff Arsenal
Suggested Location of Performance: Pine Bluff, AR
Purpose/Project Description:
The M930 provides the user a 120mm Illuminating cartridge which will provide illumination out to the full range of the M120/M121 Mortar System. The M930 Cartridge is designed for use with the M120 and M121 120mm Mortar Systems for illuminating target areas to facilitate adjustment of fire. The projectile is loaded with an illuminant candle assembly and parachute assembly.

Item Name: 120mm Mortar, All Types
Request: Support PB
Suggested Recipient: Day&Zimmermann
Suggested Location of Performance: Texarkana, TX
Purpose/Project Description:
Mortar systems enhance mission effectiveness of the maneuver unit commanders by providing indirect fire support. The US Army and Marine Corps rely on the family of mortar systems in direct combat in Afghanistan and Iraq in the Global War on Terrorism (GWOT) and for war fighter training. The munitions industrial base that is needed to support the mortar family is broad and diverse and requires stab and/or delay detonators; manufacture of pyrotechnics, fuzes, propellants, and explosives; and loading, assembling, and packing (LAP).

Item Name: 155MM Less Toxic Smoke Projectile
Request: $8,000,000
Suggested Recipient: Pine Bluff Arsenal
Suggested Location of Performance: Pine Bluff, AR
Purpose/Project Description:
This project satisfies the need for a new smoke-producing projectile in support of the operational requirements in Operation Enduring Freedom. An urgent Operational Needs Statement (ONS# 10-10103) has been submitted by U.S. combat forces in Afghanistan for a new artillery munitions that produces an effective obscurant smoke but minimizes civilian casualties and damage to surrounding areas. Pine Bluff Arsenal has the capacity to produce the development items.

Item Name: 2nd Generation Fully Fungible Biofuels
Request: $ 6,600,000
Suggested Recipient: Albemarle Corporation
Suggested Location of Performance: Magnolia, AR
Purpose/Project Description:
2nd generation biofuels are produced by using biomass consisting of the remaining non-food portions of crops that are left behind once the food crop has been extracted. The Department of Defense is exploring a wide range of energy alternatives and fuel efficiency efforts in a bid to reduce the military's reliance on oil to power its aircraft, ground vehicles, and ships. This technology addresses this problem, and does so at a low cost to the government.

Item Name: 25mm & 30mm Multi-Purpose Air Burst (MPAB)
Request: $ 8,000,000
Suggested Recipient: General Dynamics
Suggested Location of Performance: Camden, AR
Purpose/Project Description:
There is a Counter-Defilade capability gap that exists across all current force platforms to include the Bradley Fighting Vehicle (BFV). Army field commanders in ground-to-ground urban warfare in Iraq and Afghanistan have identified a critical need to quickly penetrate walls and strike at enemy personnel while limiting damage to buildings and collateral impact to non-combatants. This project provides munitions that represent a multi-role leap-ahead technology to current forces and increases their firepower and survivability beyond all current 25 mm munitions.

Item Name: 40mm Cartridge, All Types
Request: Support PB
Suggested Recipient: Day&Zimmermann
Suggested Location of Performance: Texarkana, TX
Purpose/Project Description:
Cartridge, 40mm HEDP M433 (E12601) is a dual-purpose impact type round designed to penetrate lightly armored targets and perform an anti-personnel mission. Upon impact, the detonator triggers the explosive fuzing sequence and produces a jet blast that detonates the high explosive bursting charge. Detonation of the bursting charge forms an armor-piercing jet of molten metal and fragmentation of the projectile body. This cartridge is used in both training and combat. This procurement also supports building a war reserve in accordance with the Army's and Marine Corps' procurement goals.

Item Name: 40mm Cartridge, All Types
Request: Support PB
Suggested Recipient: Day&Zimmermann
Suggested Location of Performance: Texarkana, TX
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Item Name: 60mm Mortar, All Types
Request: Support PB
Suggested Recipient: Day&Zimmermann
Suggested Location of Performance: Texarkana, TX
Purpose/Project Description:
Mortar systems enhance mission effectiveness of the maneuver unit commanders by providing indirect fire support. The US Army and Marine Corps rely on the family of mortar systems in direct combat in Afghanistan and Iraq in the Global War on Terrorism (GWOT) and for war fighter training. The munitions industrial base that is needed to support the mortar family is broad and diverse and requires stab and/or delay detonators; manufacture of pyrotechnics, fuzes, propellants, and explosives; and loading, assembling, and packing (LAP).

Item Name: 60mm Mortar, All Types
Request: Support PB
Suggested Recipient: Day&Zimmermann
Suggested Location of Performance: Texarkana, TX
Purpose/Project Description:
Mortar systems enhance mission effectiveness of the maneuver unit commanders by providing indirect fire support. The US Army and Marine Corps rely on the family of mortar systems in direct combat in Afghanistan and Iraq in the Global War on Terrorism (GWOT) and for war fighter training. The munitions industrial base that is needed to support the mortar family is broad and diverse and requires stab and/or delay detonators; manufacture of pyrotechnics, fuzes, propellants, and explosives; and loading, assembling, and packing (LAP).

Item Name: 81mm Mortar, All Types
Request: Support PB
Suggested Recipient: Day&Zimmermann
Suggested Location of Performance: Texarkana, TX
Purpose/Project Description:
Mortar systems enhance mission effectiveness of the maneuver unit commanders by providing indirect fire support. The US Army and Marine Corps rely on the family of mortar systems in direct combat in Afghanistan and Iraq in the Global War on Terrorism (GWOT) and for war fighter training. The munitions industrial base that is needed to support the mortar family is broad and diverse and requires stab and/or delay detonators; manufacture of pyrotechnics, fuzes, propellants, and explosives; and loading, assembling, and packing (LAP).

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Request: Support PB
Suggested Recipient: Day&Zimmermann
Suggested Location of Performance: Texarkana, TX
Purpose/Project Description:
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Item Name: Advanced Ceramic Material for Lightweight ESAPI Body Armor
Request: $ 4,000,000
Suggested Recipient: CoorsTek, Inc.
Suggested Location of Performance: Benton, AR
Purpose/Project Description:
ESAPI is proven both in rigourous testing and in combat to be the best body armor in the world. As the first generation of small arms protective inserts (SAPI) developed to defeat threats that became increasingly more difficult to stop, the weight of the ceramic inserts continued to increase. Improved ESAPI body armor for US troops reduces the armor's overall weight and this new body armor ceramic material is easily manufacturable to provide for the rapid execution of military needs.

Item Name: Advanced Data Visualization and Numerical Techniques for Automated Gathering and Explorations (ADVANTAGE)
Request: $ 880,000
Suggested Recipient: Arkansas State University
Suggested Location of Performance: Jonesboro, AR
Purpose/Project Description:
There is an increased need to seek tools for ADVANTAGE. The application of these tools would benefit multiple areas, the main application area to be given this ADVANTAGE would be that of characterizing the explosive effects of ordinance from the perspective of advanced chemical energetic, and force protection.

Item Name: Advanced High Performance Coatings for DoD Infrastructure
Request: $ 3,200,000
Suggested Recipient: PPG Industries, Inc.
Suggested Location of Performance: Alexander, AR
Purpose/Project Description:
This project will help mitigate corrosion of Department of Defense facilities by preventing tank and pipeline deterioration and improving performance of these constructs. Additionally, low VOC coatings will also reduce GDG emissions in the tank lining coating process.

Item Name: Advanced Medium Caliber Tungsten Penetrators
Request: $ 5,000,000
Suggested Recipient: Kennametal Inc.
Suggested Location of Performance: Rogers, AR
Purpose/Project Description:
This program continues the development and testing of advanced tungsten alloys as an alternative to Depleted Uranium (DU), and tungsten/nickel/cobalt alloys. Funding is needed to continue a multi-phased program that investigates several tungsten alloy candidates and consolidation techniques. Successful completion of this phase will allow the Army to investigate the use of new tungsten penetrators in current and future weapon systems.

Item Name: Alliance for Critical Languages and Cultures
Request: $6,000,000
Suggested Recipient: Associated Colleges of the South, including Hendrix College
Suggested Location of Performance: Conway, AR
Purpose/Project Description:
This project will train students in cricital languages and cultures. Language courses will include Chinese, Arabic, Farsi, Persian, Turkish and Urdu. The alliance will serve 1,200 to 1,500 students annually. Highly trained linguists will enhance the United States' dipolomacy, foreign relations, national security and defense efforts.

Item Name: Anthropomorphic Test Device Sensors for Kinetic and Impact Networks (ATDSKIN)
Request: $ 1,800,000
Suggested Recipient: Arkansas State University
Suggested Location of Performance: Jonesboro, AR
Purpose/Project Description:
With the increasing physical threats to America's military and law enforcement, the ATDSKIN technology can replicate actual conditions and provide meaningful data in the event of an explosive energy event. This technology will provide low cost and effective training systems for police departments and Soldiers for explosive breaching operations.

Item Name: Arena Testing Utilizing LASER Systems
Request: $ 1,300,000
Suggested Recipient: Arkansas State University
Suggested Location of Performance: Jonesboro, AR
Purpose/Project Description:
Current methods of Weapons Effect Testing (WET) require a significant level of manual effort in frame by frame analysis of events. This project will produce a leading edge sensor platform capable of being deployed for multiple WET missions.

Item Name: Breakthrough Drug for Treatment of Osteoporosis and Bone Fractures
Request: $ 3,000,000
Suggested Recipient: BiologicsMD
Suggested Location of Performance: Fayetteville, AR
Purpose/Project Description:
Bone health is an important issue not just for retired military personnel but for all ages of military personnel. This program will enhance military readiness by reducing the incident of fracture during physically intensive activities and reduce the incidence of osteoporosis later in life.

Item Name: C-3TV/C-16TV Television Surveillance System
Request: $ 5,000,000
Suggested Recipient: Naval Surface Warfare Center
Suggested Location of Performance: Philadelphia, PA
Purpose/Project Description:
The C-3TV/C-16TV Television Surveillance System will replace legacy day/night video imaging system in concert with the overall CG/DDG Aegis Modernization Program. Specific plans for the use of these funds include, manufacture and delivery of advanced video sensors already tested, approved and selected by the Navy, system level operational manuals and troubleshooting guidelines, and software to remotely operate these imaging systems as they provide continuous surveillance of all combatant ships' weather deck, flight deck, quarterdeck, piers (when in port) and surrounding surface contracts both in port and at sea. This system will reduce manpower (lookouts, roving patrols) and increase crew safety during critical operations. It will also help prevent/mitigate equipment damage by video monitoring of safe operating zones and properly attached cables, and hoses during UNREP, flight deck operations, live fire exercises, etc. Additionally the C-3TV (DDG system) and the C-16TV (CG system) provides continuous day/night perimeter surveillance to monitor for small boat attacks, swimmer boarding, pirate activity, terrorist threat, pier operations and any variety of weatherdeck operations. The system is standardized, ensuring like components Navy wide, simplifying maintenance, training and supply support. The system has been fully tested and has been selected by the Navy as the preferred replacement system for the current legacy C-3TV/C-16TV systems.

Item Name: Chemical/Biological/Defense Collective Protection
Request: $ 750,000
Suggested Recipient: Pine Bluff Arsenal
Suggested Location of Performance: Pine Bluff, AR
Purpose/Project Description:
The objective of the Chemical and Biological (CB) Collective protection program is to provide CB Collective Protection systems. The Services need a highly mobile, self-contained collective protection system which can provide a contamination free working area for Echelon I and II medical treatment facilities and other selected units. The Chemical and Biological Protective Shelter (CBPS) satisfies this need and replaces the M51 Chemical Protective Shelter.

Item Name: Chemical/Biological/Defense Decontamination
Request: $ 600,000
Suggested Recipient: Pine Bluff Arsenal
Suggested Location of Performance: Pine Bluff, AR
Purpose/Project Description:
The decontamination program facilitates the removal and detoxification of contaminants from materials without inflicting injury to personnel or damage to equipment of the environment. This Joint Service program procures a more transportable, less labor intensive, and more effective system for applying decontaminating solutions and removing gross contamination from vehicle and equipment surfaces.

Item Name: Civil Air Patrol (CAP)
Request: $ 4,500,000
Suggested Recipient: CAP National Headquarters
Suggested Location of Performance: Montgomery, AL
Purpose/Project Description:
This funding increases CAP flight hours, operational training, counterdrug support requirements, and cadet programs in support the national command authority's emergency services and aerospace education initiatives.

Item Name: CNVD High Resolution SWIR System Development
Request: $ 7,500,000
Suggested Recipient: Nychorama LLC
Suggested Location of Performance: Little Rock, AR
Purpose/Project Description:
The U.S. military needs the ability to sustain and advance operational capability beyond the limitations of our adversaries. As night vision capability continues to proliferate worldwide, this advanced technology base provides for the superiority to sustain the tactical advantage on the nighttime battlefield.

Item Name: Combined Injury Consortium
Request: $5,000,000
Suggested Recipient: University of Arkansas Medical Services
Suggested Location of Performance: Little Rock, AR
Purpose/Project Description:
The military has a requirement to treat survivors of radiation exposure. Radiation injuries occur in combination with other types of trauma in 70% of casualties after a nuclear incident. The treatment of radiation combined injuries differs significantly from the treatment of traumatic injuries or radiation injuries alone. Development of countermeasures against radiation combined injury was determined to be high priority by a 2003 Federal Interagency Working Group on Radiological Dispersal Devices and by a 2004 NIH Blue Ribbon Panel on Biodefense. The consortium will bring together experts from across the country with highly pertinent qualifications and track records for the explicit purpose of developing countermeasures against radiation combined injury. The consortium will lead to lowering the lethality in radiation combined injury scenarios and help reduce the long term effects after radiation combined injury.

Item Name: Cross Lingual Information Correlation (CLIC)
Request: $ 2,200,000
Suggested Recipient: Acxiom
Suggested Location of Performance: Conway, AR
Purpose/Project Description:
The CLIC Program will develop, demonstrate, and deliver to the Government a solution that offers the ability to anonymously capture online unstructured media content in a variety of languages and to correlate related events, entities, and sentiments producing and expanding a database of structured information, in English. CLIC will provide a suite of capabilities to help analysts comprehend, organize, and validate content in informal and colloquial genres of online communication in a variety of foreign languages.

Item: CTG, Mortar, 155mm, All Types
Request: $ 7,200,000
Suggested Recipient: Pine Bluff Arsenal
Suggested Location of Performance: Pine Bluff, AR
Purpose/Project Description:
The M1066 is a 155mm projectile that uses a special infra-red "candle" payload. The projectile is a used in conjunction with night vision goggles to illuminate the target area. The projectile is almost invisible to the naked eye, but the infra-red specturym allows a night vision advantage for our troops. The illumination and infra-red ammunition is a high demand commodity and the M1066 fulfills a critical battlefield need.

Item Name: Demilitarization Support Facility Restoration
Request: $ 5,000,000
Suggested Recipient: Pine Buff Arsenal
Suggested Location of Performance: Pine Bluff, AR
Purpose/Project Description:
The Pine Bluff Community and the State of Arkansas desire to reuse the chemical demilitarization support facility for military related missions at the Pine Bluff Arsenal. This will require restoration of utility infrastructure after decontamination and demolition of the main demilitarization building and nearby structures.

Item Name: Durability, Energy Saving and Sustainability of Oceanic Vehicles
Request: $ 3,000,000
Suggested Recipient: NanoMech
Suggested Location of Performance: Fayetteville, AR
Purpose/Project Description:
NanoMech has developed an innovative process to create unique open ended, aerodynamic fish shaped nanoparticles (15-70 nm average size) of inorganic molybdenum disulphide (MoS_2) at *room temperature*, which are intercalated and encapsulated using active organic molecules of Canola oil and phospholipids. This novel active material has demonstrated very low friction and wear characteristics in laboratory testing and is the focus of the current effort. The invention represents a significant world-class breakthrough in terms of performance, cost and environmental friendliness and can meet today's more stringent lubrication demands for both aging and new naval vehicles and support infrastructure equipment.

Item Name: Grenades, All Types
Request: Support PB
Suggested Recipient: Day&Zimmermann
Suggested Location of Performance: Texarkana, TX
Purpose/Project Description:
A system contract for a multi-year award of Army/Marine Corps M67 Hand Grenades (FY05-FY09) was awarded in June 2006. There is currently, however, a shortage of Army M67 Hand Grenades in inventory. An alternative source of production is needed to maintain adequate supplies for the Global War on Terrorism, to ensure competition for future solicitations, for meeting training inventory, and for fostering innovative technology regarding the quality and safety of the M67 Hand Grenade.

Item Name: Grenades, All Types
Request: $6,000,000
Suggested Recipient: Pine Bluff Arsenal
Suggested Location of Performance: Pine Bluff, AR
Purpose/Project Description:
Smoke grenades are canister-type grenades used as ground-to-ground or ground-to-air signaling devices, target or landing zone marking devices, or a screening device for unit movements. Smoke grenades are normally considered non lethal, although incorrect use may cause injury or fatality. The body consists of a sheet steel cylinder with a few emission holes on top and at the bottom to allow smoke release when the grenade is ignited.

Item Name: High Efficiency Triple Junction Solar Cell
Request: $ 5,000,000
Suggested Recipient: University of Arkansas at Fort Smith
Suggested Location of Performance: Fort Smith, AR
Purpose/Project Description:
This project is designed to meet a critical need for the U.S. military, which is to develop a reliable, light-weight, portable power generation and energy storage system for use in remote or hostile environments. The concept behind the project is to replace typical batteries, the traditional power source the military uses, that are heavy, non-standardized, and need replacing, with high efficiency solar cell technology and an energy scavenging system that will eliminate these problems.

Item Name: High Frequency Devices and Circuits for Nanotubes and Nanowires
Request: $ 3,000,000
Suggested Recipient: University of Arkansas Fayetteville
Suggested Location of Performance: Fayetteville, AR
Purpose/Project Description:
Military and commercial applications of RF, microwave and millimeter-wave systems are searching for faster and miniaturized devices that can be produced at reduced cost. Nanowires and nanotubes can be exploited to meet these requirements. The objective of this proposed research is to develop carbon nanotube- and silicon nanowire-based high frequency components. The project will design, fabricate and test optimized electronic devices that take advantage of these features. These devices must have lower parasitic elements to take full advantage of the nano structures and operate at high frequencies. Carbon nanotubes exhibit faster electron speeds which lead to higher operating frequencies and more currents. Faster switching speed and size reduction of components are crucial figures of merit for military and commercial applications. Furthermore, this research will lead to fully organic (plastic) electric and electronic circuits, which are lightweight, low loss, durable, easy to carry and bend, and provide more battery life.

Item Name: Hydra-70 70 mm (2.75 inch) Rockets
Request: Support PB
Suggested Recipient: General Dynamics
Suggested Location of Performance: Camden, AR
Purpose/Project Description:
The Hydra-70 rocket system is used by Army, Navy, Marine Corps and Special Operations helicopters and Navy, Marine and Air Force jet aircraft. The Hydra-70 Family of rockets includes eight different tactical warheads that provide combat overmatch and three training warheads required to ensure the warfighting readiness posture for U.S. aviation assets. The combat proven Hydra-70 is crucial in the accomplishment of anti-material, anti-personnel, and air-to-ground suppression missions in both Afghanistan and Iraq. The Project Manager Joint Attack Munition Systems manages the Hydra-70 rockets.

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Item Name: Individual Deceased Personnel Files (IDPF) Program
Request: $ 8,000,000
Suggested Recipient: HMS Technologies, Inc.
Suggested Location of Performance: Lowell, AR
Purpose/Project Description:
IDPFs are a historically important and sensitive repository of over 375 million individual items representing the Service records of approximately one million deceased Army/Army Air Corps veterans dating to World War I. This Pilot Program will help develop a program important to the Department of Defense and will provide employment opportunities for our nation's unemployed veterans and disabled veterans.

Item Name: Information Quality Tools for Persistent Surveillance Data Sets
Request: $ 2,000,000
Suggested Recipient: University of Arkansas at Little Rock
Suggested Location of Performance: Little Rock, AR
Purpose/Project Description:
Data quality is a fundamental challenge for data applications involving large and diverse data sets such as persistent surveillance, autonomous air vehicle operation, integrated battle command and control, financial, personnel management, and other Air Force mission systems. Managing input data and ensuring quality is critical to the performance of analysis systems in terms of accuracy, processing efficiency, reliability and cost. Persistent surveillance operations in Iraq and other areas are generating unprecedented amounts of data that must be integrated with other data sets to support complex analysis. The continuous volumes of data and need for rapid analysis requires automated processing tools to identify features, events, or other anomalies of interest for further analysis by human operators. Automated tools and methods for data quality assurance are critical components of a workable persistent surveillance mission system.

Item Name: Joint Stand Off Weapon – Extended Range (JSOW-ER)
Request: $ 6,500,000
Suggested Recipient: LaBarge, Inc.
Suggested Location of Performance: Berryville, AR
Purpose/Project Description:
The U.S. Navy needs additional long-range standoff weapons to ensure that its aircraft are able to remain outside the lethal range of enemy air defense systems. JSOW-ER provides long range standoff capability using off-the-shelf technology. Funding for this project would be for the development of a prototype tactical fuel system, ground testing, and the integration of an existing warhead.

Item Name: Laser Detection of Radionuclides for Nuclear Facilities (LDRNF)
Request: $ 2,400,000
Suggested Recipient: Arkansas State University
Suggested Location of Performance: Jonesboro, AR
Purpose/Project Description:
Future Department of Defense needs in the Chemical, Biological, Radiological, Nuclear, and Explosive (CBRNE) sensing arena will require development of sensors capable of near-real-time detection of CBRNE threats present in the minute quantities from standoff distances. This program will develop near real time detection as well as confirmation of radionuclide molecules in the atmosphere from clandestine testing and will provide the first standoff detection capability for fissile dirty bomb materials.

Item Name: Miniature Air Launched Decoy (MALD)
Request: $ 6,000,000
Suggested Recipient: LaBarge, Inc.
Suggested Location of Performance: Berryville, AR
Purpose/Project Description:
The Navy is considering a variant of the Air Force's MALD-J to replace its Improved Tactical Air Launched Decoy (ITALD-J) jammers when they reach the end of their planned life in 2016. The MALD-N would build upon investments that have been made by the Air Force and allow the Navy to replace the ITALD-J at the lowest possible cost.

Item Name: Nanoscale Solar Powered Bio-Sensors
Request: $ 3,000,000
Suggested Recipient: University of Arkansas Fayetteville
Suggested Location of Performance: Fayetteville, AR
Purpose/Project Description:
The University of Arkansas is uniquely suited to bring about novel bio-sensor advances because of its unique nanoscale ferroelectric, magnetic, and quantum dot material fabrication facilities that creates newly discovered nanoscale materials and uses unique visualization techniques to image and manipulate them at the scale of the individual atom. These funds will be used to develop new nanotechnology infrastructures and promote recent breakthroughs in nanostructures for research and development of nanoscale biological sensors. This initiative is vital to the Army's vision to achieve protection for its soldiers and civilian communities from bacteria, viruses, and biological toxins likely to be used as biological weaponry.

Item: Nanotechnology for Anti-Reverse Engineering
Request: $ 3,000,000
Suggested Recipient: Space Photonics
Suggested Location of Performance: Fayetteville, AR
Purpose/Project Description:
Anti-Tamper (AT) technology covers a broad range of hardware and software areas, specifically associated with weapon systems, and while electronics are a major area of vulnerability in weapon systems, particularly advanced microchip and circuit design, nanotechnology is proving to be a very promising area for AT solutions for effective and undetectable passive and active Hardware AT and software AT safeguards. Space Photonics, an Arkansas high technology small business, is working with the Army, Navy, and Air Force to develop and deliver advanced Anti-Tamper products for protecting weapon systems. We request $3 million to complete product development and integration of the components, and to prepare for full flight qualification within military aircraft, both manned and unmanned aerial vehicles (UAV).

Item Name: Personal Rehabilitation, Individual Development and Education (PRIDE) Center for America's Wounded Veterans
Request: $ 2,000,000
Suggested Recipient: Arkansas State University
Suggested Location of Performance: Jonesboro, AR
Purpose/Project Description:
This program provides combat wounded veterans with first class services at ASU; assistance with access to the college experience; advocacy, counseling, personal rehabilitation, and financial assistance; to support veterans in achieving their individual post service goals. The primary goal of the Beck PRIDE Center is to address the needs of wounded or disabled veterans by helping to eliminate obstacles that might hinder their ability to obtain higher education and to give them the tools they need to achieve their personal and educational goals.

Item Name: Rare Earth Alternatives for Permanent Magnet Motors
Request: $ 6,200,000
Suggested Recipient: Baldor Electric Company
Suggested Location of Performance: Fort Smith, AR
Purpose/Project Description:
This project will provide the Department of Defense with commercially viable, domestically produced alternatives for rare earth elements with are used in lightweight motors, superconductors, hybrid vehicle batteries and a number of other components for "green technologies."

Item Name: Silicon Carbide Power Modules for the F-35 Joint Strike Fighter
Request: $ 4,000,000
Suggested Recipient: Arkansas Power Electronics International, Inc.
Suggested Location of Performance: Fayetteville, AR
Purpose/Project Description:
The F-35 Joint Strike Fighter is one of the first major programs implementing the Air Force's new More Electric and All Electric Aircraft (MEA/AEA) design philosophy, which mandates the replacement of costly and bulky mechanical hydraulic aircraft flight control systems with lighter weight, high-reliability, low-maintenance electric motors and drives. The high power densities and high voltages required to operate mechanical flight systems using electric motors are driving a transition to high density silicon carbide (SiC) power electronic systems that can operate at higher efficiencies, higher voltages, higher power densities, and at higher temperatures in comparison with conventional silicon electronics. This project will transfer laboratory tested SiC power electronics technology to F-35 actuator drive flight systems.

Item Name: SM-2 Production
Request: $ 20,000,000
Suggested Recipient: Raytheon Company
Suggested Location of Performance: Camden, AR
Purpose/Project Description:
The FY11 budget proposes to build three new DDG-51 vessels every two years through the five year FYDP which increases the inventory objective for the SM-2 missile. This funding will ensure the program is able to continue building missiles for future US Navy ships and future allied naval ships planned to be armed with Standard Missile weaponry.

Item Name: Stabilized Hemoglobin Wound Healing Development
Request: $ 2,000,000
Suggested Recipient: IKOR, Inc.
Suggested Location of Performance: Little Rock, AR
Purpose/Project Description:
A significant number of battlefield deaths are the result of severe blood loss and problem wounds where parts of the body do not receive sufficient oxygen supply. Funding for this project would accelerate research and development of an innovative oxygen delivery system for critical wound healing using synthesized and harvested hemoglobin from bovine sources.

Item Name: Standard Missile -3 Production
Request: $ 185,000,000
Suggested Recipient: Raytheon
Suggested Location of Performance: Camden, AR
Purpose/Project Description:
For the second straight year, the Administration has increased the emphasis for regional missile defense programs including Aegis BMD and SM-3, but reduced the budget year SM-3 procurement. Due to fiscal constraints, MDA programmed only eight SM-3 Block IB missiles in FY11, fully funded with Defense Wide Procurement. This small quantity is not cost effective, does not maintain an efficient industrial base, including 2nd and 3rd tier suppliers, and does not position the program for the future increased quantity buys (66 rounds programmed in FY12, 72 rounds in FY13). The JCM II study completed by U.S. Strategic Command in CY07 indicated that Combatant Commanders require well over 300 SM-3 missiles in order to mitigate the risk posed by the proliferation of ballistic missile threats.

Item Name: Standard Missile – 6 Service Life Extension Program
Request: $ 9,400,000
Suggested Recipient: Aerojet
Suggested Location of Performance: Camden, AR
Purpose/Project Description:
The US Navy has been developing the Standard Missile - 6 (SM-6) missile for more than six years. SM-6 is currently on budget and on schedule with multiple, successful test firings completed in 2008 proving the performance of the system. The Navy should be encouraged to continue the program and ensure it goes into Low Rate Initial Production (LRIP) on time and proceeds to Full Rate Production as quickly as possible. Additionally, the Navy should be encouraged to develop an SM-6 technology roadmap to improve capabilities of the weapon to keep pace with the threat.

Item Name: Terahertz Sensing and Imaging Technology
Request: $ 3,000,000
Suggested Recipient: University of Arkansas Fayetteville
Suggested Location of Performance: Fayetteville, AR
Purpose/Project Description:
Portable Terahertz Sensing and Imaging technology will significantly reduce the risk to soldiers to hidden or concealed weapons and explosive devices, and serves as a replacement to current technologies due to the system size and weight for portability, while providing added bandwidth. Terahertz Sensing and Imaging dramatically improves the power and performance of packaged system modules, especially in the frequency range of 0.1 to 1.0 terahertz, a range that is of significant interest due to its ability to see through clothing and other materials. Today's technology does not provide the power and the ability to operate over the desired frequency range to produce an effective handheld device.

Item Name: Vanadium Safety Readiness Report
Request: $4,000,000
Suggested Recipient: Army Medical Research and Materials Command
Suggested Location of Performance: Fort Detrick, MD
Purpose/Project Description:
The Vanadium Safety Readiness program is designed to ensure that Department of Defense is equipped to properly safeguard the health and safety of military and civilian workers exposed to vanadium through work in military applications. There are a number of unknown factors about the health risks of vanadium and a number of conflicting studies and research that exacerbate the lack of solid, reliable information. The Vanadium Safety Readiness Program provides assurance that all necessary steps are being taken to protect government and civilian employees in this critical defense sector. This is a cooperative relationship between the vanadium microalloyed steel industry, academia and the U.S. Army.

Fiscal Year 2011 Military Construction Authorization Requests

Project Name: 48th Airlift Squadron Operations Facility
Request: $ 11,000,000
Service Component: U.S. Air Force
Project Location: Little Rock Air Force Base, AR
Project Description:
This project constructs a Squadron Operations (SQ OPS) Facility. Little Rock AFB currently has seven flying squadrons, in three training and four mobility squadrons. Only five of these squadrons have adequate SQ OPS/AMU facilities. The 48AS SQ OPS is housed in a substandard facility, which is inadequate for current operations. This squadron has seven permanently assigned aircraft (PAA), 51 permanent personnel authorized, and approximately 18 students. By the end of FY15, 48AS will have 14 PAA and will be authorized 107 permanent personnel. 48AS will add 3 PAA in FY11, 2 PAA in FY14, and 2 PAA in FY15, with additional personnel being added proportionally. Additionally, loadmaster training alone will increase 65% in FY10 and J-Model training sorties increase by 1,000 in FY11. By AETC standards the 48 AS should have at least 2,515 SM. However, the current 48 AS facility only has 679 SM, 27% of the requirement. The current facility does not have adequate space to accommodate current personnel, let alone be able to support the doubling of assigned personnel. This problem affects the training mission and safety of squadron personnel. An example of the extremely limited space in the current 48 AS OPS facility is the female restroom which is only 4 SM.

Project Name: Base Supply Warehouse Complex
Request: $ 8,800,000
Service Component: Air National Guard
Project Location: Fort Smith, Arkansas
Project Description:
The Logistics Readiness Squadron Base Supply and Equipment Warehouse supports an A-10, 18 PAA mission. It is located in a 1955 facility (original to the base) with the last significant upgrade occurring in 1983. The current building is not configured appropriately and does not meet current Air National Guard space configuration guidelines / authorizations. The warehouse was constructed when volumetric space was not considered thus leading to 12 ft ceilings greatly reducing the capability of implementing efficient material handling systems for proper material storage. The low ceiling heights are further exasperated by the fire suppression systems and lighting. Accessibility / external deliveries to the facility are severely hampered due to current road configurations and the lack of an adequate loading & unloading dock for shipping and receiving. Electrical, lighting, plumbing and mechanical systems are all antiquated and do not meet NEC, NFPA, ASHRAE and other building code requirements. Additionally, this facility will not be able to meet the EPACT 2005 and Executive Order 13423 directives.

Project Name: CMTC Operational Readiness Training Complex (ORTC)
Request: $ 2,755,000
Service Component: Army National Guard
Project Location: Fort Chaffee, Arkansas
Project Description:
This project is required to meet shortfalls, especially in the areas of classroom, administrative functions, barracks, and dining facility space. This training, storage, and administrative space is the minimum essential area needed to effectively train and accomplish the combat readiness objectives of the Army National Guard. The current billets are primarily old WWII era temporary TOE wood frame buildings that are dispersed and unsuitable for renovation. The balance of the facility lacks adequate administrative offices, classrooms, supply and storage rooms, dining facilities, and latrines.

Project Name: Combined Arms Collective Training Facility
Request: Support PB
Service Component: Army National Guard
Project Location: Fort Chaffee, Arkansas
Project Description:
Units preparing for deployment require collective training in a simulated urban environment. Urban environment training opportunities within the state of Arkansas are insufficient to meet the needs of Soldiers and units preparing for deployment in support of the Global War On Terrorism. Construction of a Combined Arms Collective Training Facility (CACTF) would improve the combat effectiveness and survivability of all units within the region. The CACTF consists of an array of buildings, road network, and other faux features such as overhead utility lines and underground storm water drains. The CACTF training buildings are organized into three areas, or "pods" designed to replicate municipal, residential, and commercial settings. The municipal and residential areas are designed to create a "street canyon" effect placing building on both sides of the road. The commercial areas create a business district. The overhead utilities and underground storm water drains along with the training buildings are intended to create a three dimensional training environment.

Project Name: Combined Support Maintenance Shop (CSMS)
Request: Support PB
Service Component: Army National Guard
Project Location: Camp Robinson, Arkansas
Project Description:
The existing CSMS complex does not meet National Guard Bureau facility criteria to support administrative, storage, allied trades, and maintenance requirements of the Arkansas Army National Guard. Renovation of existing structures within the complex is not a viable option. The CSMS provides full-time maintenance support to every Arkansas Army National Guard unit within the state. The existing CSMS was built in 1955 and comprises only 50% of required space. Workers currently conduct operations in 14 separate buildings within the complex. Inadequate work space and the separation of inter-related activities create potential safety hazards and minimize efficiency.

Project Name: Consolidated Family Support Services
Request: $ 6,800,000
Service Component: U.S. Air Force
Project Location: Little Rock Air Force Base, AR
Project Description:
This project consolidates critical family support services by renovating the old Base Exchange to fulfill the General Plan, Community Center (ADP) requirement for the Library, Community Center, Airman Family Readiness Center and Thrift Shop to move into Building 940 and demolish their current facilities. If not completed, the four primary family support service entities will continue to be housed in very undersized, old and deteriorating buildings, unable to adequately support the base mission. The Spouses Support Group will be without a home. Users of these facilities will continue to be exposed to an environment that is hazardous to health, including mold and deteriorating asbestos material. The following benefits of consolidation will not be achieved; initial and long term facility cost savings, cross-fertilization, and improvement of programs, increased program use, availability and convenience for all installation population groups.

Project Name: Field Maintenance Shop
Request: $ 7,000,000
Service Component: Army National Guard
Project Location: Searcy, Arkansas
Project Description:
The facility is required to maintain equipment and issue/turn-in for peacetime training and ensure the equipment is prepared for mobilization. The FMS is an ARARNG TDA maintenance facility which provides full-time DS level support to a ARARNG FA Brigade and Support Company. No other adequate facilities are available to support the units. The 1998 ARARNG Master Plan has evaluated and recommended that the FMS should be collocated with the Readiness Center in Searcy. The current facility is in poor condition, does not meet current building codes or criteria, and is 25% the size authorized to support the facility mission. The facility size cannot support the ARARNG's Master Plan of collocating the FMS and the Readiness Center. The current use military parking area and road system is unpaved and poorly drained and become almost impassable during heavy rain.

Project Name: Fuel Cell and Corrosion Control Hanger
Request: $ 10,120,000
Service Component: Air National Guard
Project Location: Little Rock Air Force Base, Arkansas
Project Description:
The base requires a facility for the environmentally safe repair of aircraft fuel cells and bladders and for the performance of corrosion control on aircraft parts both on and off the aircraft. Functional areas include fuel cell/corrosion control hangar bay, bladder repair shop, support shop space, paint spray area for painting large and small parts, training and administration areas. Apron access to the bays is necessary. Environmentally safe exhaust/control systems to prevent air pollution and an oil/water separator to prevent corrosion contaminates or fuel spills from entering the soil/aquifer or waste water system will be required.

Project Name: Live Fire Shoot House
Request: Support PB
Service Component: Army National Guard
Project Location: Fort Chaffee, Arkansas
Project Description:
Individual Soldiers and units preparing for deployment in support of the Global War on Terrorism require "Live-Fire" experience in a simulated urban environment. Training opportunities within the state of Arkansas are insufficient to meet these needs. Construction of a Live Fire Shoot House would improve the combat effectiveness and survivability of all units within the region. The Live Fire Shoot House is a live fire training facility featuring a series of rooms used to sustain individual and squad-level team proficiencies in an urban environment. The facility is fully instrumented to record training exercises and facilitate the after action review process. The walls are constructed of ballistic absorbing material and may be easily reconfigured to offer a variety of scenarios. The facility includes a "catwalk" system to accommodate observer / controllers who insure training activities are conducted in a safe manner.

Project Name: Regional Training Institute (Phase II)
Request: $ 1,900,000
Service Component: Army National Guard
Project Location: Camp Robinson, Arkansas
Project Description:
This project is a permanent educational facility which will provide billet space for the students/cadre for the 223rd Regiment (RTI) to plan, program, conduct ARNG and USAR training for the region. This 223rd has a required strength of 104 personnel and the RTI has a student load of 283. The RTI will provide the necessary administrative, educational, dining and billeting areas required to plan, program, and conduct training for the region. Currently, the 223rd is located primarily in old WWII era temporary TOE wood frame buildings that are dispersed and unsuitable for renovation. The facilities lack adequate administrative offices, supply and storage rooms, classrooms, latrines, dining area, and billets.